

UNIVERSAL WINDOW TIMES **JANUARY 1981** **thru** **DECEMBER 1981**



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The following Universal Window times are based on the specifications outlined in AS-49-12. The European Universal Window is always during positive declination. The start of the window is two hours from the setting moon time in Frankfurt, Germany. The end of the window is when the moon sets at this same location. Keep in mind that Western Europe can still see the moon for another hour, or so, after the moon sets at Frankfurt. Also, the Western Hemisphere can still see the moon for many more hours. Quite often the European and U.S. stations will operate during negative declinations, and just before moonset in Europe, if the times are convenient. There is a good chance for activity on weekends on frequencies from 144.000 to 144.010 MHz.

Also included are the times each month for the new moon. When the moon and sun are at almost the same G.H.A. and declination, the moon cannot be seen because of the visible radiation from the sun. The radio frequency radiation will be sufficient to obliterate any echoes. The more antenna directivity a station has, the closer to the sun it can be used. There is a limit however. With a 160 element collinear on 144 MHz, it is usually possible to operate successfully one day before and one day after new moon.

<u>1981</u>	<u>New Moon</u>	<u>Perigee</u>	<u>Apogee</u>
January	6	15	27
February	4	8	24
March	6	8	24
April	4	5	20
May	4	4	17
June	2	1,29	14
July	1,31	27	11
August	29	21	8
September	28	17	5
October	27	15	3,30
November	26	12	26
December	26	11	24

JANUARY-1981

<u>Day</u>	<u>UT</u>
12	2108-2308
13-14	2224-0024
14-15	2340-0140
16	0056-0256
17	0208-0408
18	0316-0516
19	0416-0616
20	0506-0706
21	0546-0746
22	0620-0820
23	0648-0848
24	0712-0912
25	0734-0934

FEBRUARY-1981

<u>Day</u>	<u>UT</u>
8	0056-2056
9	2014-2214
10	2130-2330
11-12	2246-0046
12-13	2358-0158
14	0106-0306
15	0208-0408
16	0258-0458
17	0342-0542
18	0418-0618
19	0448-0648
20	0514-0714
21	0538-0738

MARCH-1981

<u>Day</u>	<u>UT</u>
8	1756-1956
9	1916-2116
10	2034-2234
11	2150-2350
12-13	2300-0100
14	0004-0204
15	0058-0258
16	0142-0342
17	0220-0420
18	0250-0450
19	0318-0518
20	0340-0540
21	0402-0602

APRIL-1981

<u>Day</u>	<u>UT</u>
4	1528-1728
5	1650-1850
6	1812-2012
7	1932-2132
8	2048-2248
9	2156-2356
10-11	2256-0056
11-12	2344-0144
13	0044-0244
14	0056-0256
15	0122-0322
16	0146-0346
17	0208-0408

<u>MAY-1981</u>		<u>JUNE-1981</u>	
<u>Day</u>	<u>UT</u>	<u>Day</u>	<u>UT</u>
2	1418-1618	1	1554-1754
3	1542-1742	2	1714-1914
4	1704-1904	3	1826-2026
5	1826-2026	4	1928-2128
6	1940-2140	5	1920-2220
7	2046-2246	6	2100-2300
8	2140-2340	7	2132-2332
9-10	2224-0024	8	2158-2358
10-11	2300-0100	9-10	2222-0022
11-12	2328-0128	10-11	2242-0042
12-13	2358-0154	26	1050-1250
14	0016-0216	27	1208-1408
29	1150-1350	28	1328-1528
30	1310-1510	29	1448-1648
31	1430-1630	30	1604-1804

<u>JULY-1981</u>		<u>AUGUST-1981</u>	
<u>Day</u>	<u>UT</u>	<u>Day</u>	<u>UT</u>
1	1710-1910	1	1758-1958
1	1808-2008	2	1800-2026
3	1854-2054	3	1850-2050
4	1930-2130	4	1912-2112
5	2000-2200	19	0628-0828
6	2026-2226	20	0744-0944
7	2048-2248	21	0902-1102
23	0838-1038	22	1018-1218
24	0954-1154	23	1134-1334
25	1112-1312	24	1244-1444
26	1230-1430	25	1346-1546
27	1344-1544	26	1438-1638
28	1454-1654	27	1522-1722
29	1554-1754	28	1558-1758
30	1644-1844	29	1626-1826
31	1726-1926	30	1652-1852

SEPTEMBER-1981

<u>Day</u>	<u>UT</u>
16	0528-0728
17	0648-0848
18	0808-1008
19	0924-1124
20	1036-1236
21	1142-1342
22	1236-1436
23	1322-1522
24	1358-1558
25	1430-1630
26	1454-1654
27	1518-1718

OCTOBER-1981

<u>Day</u>	<u>UT</u>
13	0302-0502
14	0424-0624
15	0546-0746
16	0708-0908
17	0824-1024
18	0936-1136
19	1034-1234
20	1123-1323
21	1204-1404
22	1234-1434
23	1300-1500
24	1324-1524
25	1344-1544

NOVEMBER-1981

<u>Day</u>	<u>UT</u>
10	0152-0352
11	0314-0514
12	0438-0638
13	0600-0800
14	0714-0914
15	0826-1026
16	0920-1120
17	1004-1204
18	1040-1240
19	1108-1308
20	1132-1332
21	1152-1352

DECEMBER-1981

<u>Day</u>	<u>UT</u>
6- 7	2324-0124
8	0044-0244
9	0204-0404
10	0328-0528
11	0450-0650
12	0604-0804
13	0706-0906
14	0758-0958
15	0838-1038
16	0910-1110
17	0936-1136
18	0958-1158
19	1020-1220

CALENDAR FOR THE YEAR 1981

JANUARY

5	M	T	W	T	F	5
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

FEBRUARY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

MARCH

5	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

APRIL

5	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

MAY

5	M	T	W	T	F	5
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

JUNE

5	M	T	W	T	F	5
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

JULY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

AUGUST

5	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

SEPTEMBER

5	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

OCTOBER

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

NOVEMBER

5	M	T	W	T	F	5
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

DECEMBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

NEW MOON ~~X~~
 PERIGEE ○
 APOGEE □
 UWIND —